

Application Serial No. 10/070,784
Amendment dated January 7, 2005
Reply to Office Action dated October 18, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (currently amended): ~~Transmission unit according to claim 1 wherein: Transmission unit, comprising:~~

a transmission input shaft (E) and a transmission output shaft (A), and a transmission basic unit (25) situated between transmission input shaft (E) and transmission output shaft (A), which is connected to an angular drive (4);

the angular drive (4) including a bevel gear drive (3) with a first bevel gear (8) and a second bevel gear (9), where the second bevel gear (9) is solidly connected to the transmission output shaft, at least indirectly;

a transmission housing (5) that includes at least a transmission base housing (6) that covers the transmission basic unit (25), and which is connected to a housing cover formed by a transmission housing component (7) which covers the angular drive (4) at least in part;

the first bevel gear (8) of the angular drive (4) and a transmission element of the transmission basic unit (25), which constitutes the output (15) of the transmission basic unit (25), having a direct and solid connection without a separate connecting shaft and located in immediate proximity to each other;

the transmission basic unit (25) not including any elements capable of generating axial forces to act against the housing cover;

the solid connection consisting essentially of complementary driving elements, which may be brought to bear upon each other, on the transmission element functioning as the output (15) and the first bevel gear (8);

the first bevel gear (8) of angular drive (4) supported within the transmission housing component (7);

the transmission basic unit (25) includes including at least one epicyclic gear train (27) with at least one annulus (26), one sun gear (12) and pinion gears (13);

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the output (15) of transmission basic unit (25) ~~consists~~ consisting essentially of an element of the epicyclic gear train (27).

Claim 3 (currently amended): Transmission unit according to claim [[1]] 2 including driving elements on the first bevel gear (8) and/or on the transmission element that forms the output (15) of the transmission basic unit (25) and the corresponding driving elements on the transmission element that forms the output (15) of the transmission basic unit (25) and/or the first bevel gear (8), which are oriented and positioned in an axial direction relative to the position of the transmission axis, specifically the transmission input shaft (E), as installed.

Claim 4 (currently amended): Transmission unit according to claim [[1]] 2 characterized by having driving elements on the first bevel gear (8) and/or on the transmission element that forms the output (15) of the transmission basic unit (25) and the corresponding driving elements on the transmission element that forms the output (15) of the transmission basic unit (25) and/or the first bevel gear (8), which are oriented and positioned radially relative to the transmission axis, specifically the transmission input shaft (E), as installed.

Claim 5 (previously presented): Transmission unit according to claim 4 wherein:

the driving elements are positioned in the area of the interior circumference of the transmission element which forms the output (15) of the transmission basic unit;

the driving elements complementary to the driving elements positioned in the area of the interior circumference are positioned on the first bevel gear (8) in the area of its external circumference (16).

Claim 6 (currently amended): Transmission unit according to claim 4 wherein: Transmission unit, comprising:

a transmission input shaft (E) and a transmission output shaft (A), and a transmission basic unit (25) situated between transmission input shaft (E) and transmission output shaft (A), which is connected to an angular drive (4);

the angular drive (4) including a bevel gear drive (3) with a first bevel gear (8) and a second bevel gear (9), where the second bevel gear (9) is solidly connected to the transmission output shaft, at least indirectly;

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a transmission housing (5) that includes at least a transmission base housing (6) that covers the transmission basic unit (25), and which is connected to a housing cover formed by a transmission housing component (7) which covers the angular drive (4) at least in part;

the first bevel gear (8) of the angular drive (4) and a transmission element of the transmission basic unit (25), which constitutes the output (15) of the transmission basic unit (25), having a direct and solid connection without a separate connecting shaft and located in immediate proximity to each other;

the transmission basic unit (25) not including any elements capable of generating axial forces to act against the housing cover;

the solid connection consisting essentially of complementary driving elements, which may be brought to bear upon each other, on the transmission element functioning as the output (15) and the first bevel gear (8);

the first bevel gear (8) of angular drive (4) supported within the transmission housing component (7);

driving elements on the first bevel gear (8) and/or on the transmission element that forms the output (15) of the transmission basic unit (25) and the corresponding driving elements on the transmission element that forms the output (15) of the transmission basic unit (25) and/or the first bevel gear (8), which are oriented and positioned radially relative to the transmission axis, specifically the transmission input shaft (E), as installed;

the output (15) of transmission basic unit (25) consists consisting essentially of an annulus (26) of an epicyclic gear train (27);

the driving elements consist consisting essentially of an exterior toothing (28) on the first bevel gear (8) complementary to interior toothing (29) of an axially extended portion of the annulus (26), which does not connect to the pinion gears (13) and where the first bevel gear (8) has a segment (35) with no beveled toothing.

Claim 7 (previously presented): Transmission unit according to claim 2 wherein the output (15) of the transmission basic unit (25) has a transmission element consisting essentially of a sun gear (12) of the epicyclic gear train (27).

Claim 8 (currently amended): Transmission unit according to claim 1 wherein: Transmission unit, comprising:

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a transmission input shaft (E) and a transmission output shaft (A), and a transmission basic unit (25) situated between transmission input shaft (E) and transmission output shaft (A), which is connected to an angular drive (4);

the angular drive (4) including a bevel gear drive (3) with a first bevel gear (8) and a second bevel gear (9), where the second bevel gear (9) is solidly connected to the transmission output shaft, at least indirectly;

a transmission housing (5) that includes at least a transmission base housing (6) that covers the transmission basic unit (25), and which is connected to a housing cover formed by a transmission housing component (7) which covers the angular drive (4) at least in part;

the first bevel gear (8) of the angular drive (4) and a transmission element of the transmission basic unit (25), which constitutes the output (15) of the transmission basic unit (25), having a direct and solid connection without a separate connecting shaft and located in immediate proximity to each other;

the transmission basic unit (25) not including any elements capable of generating axial forces to act against the housing cover;

the solid connection consisting essentially of complementary driving elements, which may be brought to bear upon each other, on the transmission element functioning as the output (15) and the first bevel gear (8);

the first bevel gear (8) of angular drive (4) supported within the transmission housing component (7); and wherein:

the transmission housing component (7) which encloses the transmission unit at least in the area of the angular drive (4) is designed for all theoretically possible angular drives with the following characteristics:

the gear ratio i is essentially constant,

the outside diameters of the various bevel gears are essentially constant, and

the housing component has the same exterior dimensions,

whereby various position angles for the transmission output shaft (A) may be realized by an exchangeable apparatus to support the second bevel gear (9) and/or the transmission output shaft (A).

Claim 9 (previously presented): Transmission unit according to claim 8 wherein the transmission housing component (7) consists essentially of a single housing.

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Claim 10 (currently amended): Transmission unit according to claim [[1]] 2 wherein the transmission basic unit (25) comprises a hydrodynamic and a mechanical transmission component.

Claim 11 (currently amended): Transmission unit according to claim [[1]] 2 wherein the angular drive (4) and the housing component, which covers the angular drive at least partially, are combined into a modular unit.

Claim 12 (currently amended): Transmission unit according to claim [[1]] 2 characterized by straight toothing in the toothing of the connected bevel gears.

Claim 13 (currently amended): Transmission unit according to claim [[1]] 2 characterized by diagonal toothing in the toothing of the connected bevel gears of the bevel gear drive.

Claim 14 (previously presented): Transmission unit according to claim 12 characterized by identical height of the toothing of the bevel gears of the bevel gear drive.

Claim 15 (previously presented): Transmission unit according to claim 2, characterized by having driving elements on the first bevel gear (8) and/or on the transmission element that forms the output (15) of the transmission basic unit (25) and the corresponding driving elements on the transmission element that forms the output (15) of the transmission basic unit (25) and/or the first bevel gear (8), which are oriented and positioned in an axial direction relative to the position of the transmission axis, specifically the transmission input shaft (E), as installed.

Claim 16 (previously presented): Transmission unit according to claim 2, including having driving elements on the first bevel gear (8) and/or on the transmission element that forms the output (15) of the transmission basic unit (25) and the corresponding driving elements on the transmission element that forms the output (15) of the transmission basic unit (25) and/or the first bevel gear (8), which are oriented and positioned radially relative to the transmission axis, specifically the transmission input shaft (E), as installed.

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Claim 17 (previously presented): Transmission unit according to claim 5 wherein:

the output (15) of transmission basic unit (25) consists essentially of an annulus (26) of an epicyclic gear train (27);

the driving elements consist essentially of an exterior toothing (28) on the first bevel gear (8) complementary to interior toothing (29) of an axially extending portion of the annulus (26), which does not connect to the pinion gears (13) and where the first bevel gear (8) has a segment (35) with no beveled toothing.

Claim 18 (currently amended): ~~Transmission unit according to claim 3 characterized by~~
Transmission unit, comprising:

a transmission input shaft (E) and a transmission output shaft (A), and a transmission basic unit (25) situated between transmission input shaft (E) and transmission output shaft (A), which is connected to an angular drive (4);

the angular drive (4) including a bevel gear drive (3) with a first bevel gear (8) and a second bevel gear (9), where the second bevel gear (9) is solidly connected to the transmission output shaft, at least indirectly;

a transmission housing (5) that includes at least a transmission base housing (6) that covers the transmission basic unit (25), and which is connected to a housing cover formed by a transmission housing component (7) which covers the angular drive (4) at least in part;

the first bevel gear (8) of the angular drive (4) and a transmission element of the transmission basic unit (25), which constitutes the output (15) of the transmission basic unit (25), having a direct and solid connection without a separate connecting shaft and located in immediate proximity to each other;

the transmission basic unit (25) not including any elements capable of generating axial forces to act against the housing cover;

the solid connection consisting essentially of complementary driving elements, which may be brought to bear upon each other, on the transmission element functioning as the output (15) and the first bevel gear (8);

the first bevel gear (8) of angular drive (4) supported within the transmission housing component (7);

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the output (15) of the transmission basic unit (25) having a transmission element consisting essentially of a sun gear (12) of an epicyclic gear train (27).

Claim 19. (previously presented): Transmission unit according to claim 4 characterized by the output (15) of the transmission basic unit (25) having a transmission element consisting essentially of a sun gear (12) of an epicyclic gear train (27).

Claim 20 (previously presented): Transmission unit according to claim 5 characterized by the output (15) of the transmission basic unit (25) having a transmission element consisting essentially of a sun gear (12) of an epicyclic gear train (27).